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XIII.—*Descriptions of new Shells.* By RICHARD BRINSLEY
HINDS, Esq., Surgeon R.N.

[With a Plate.]

Psammobia decora. Testa oblonga, tenui, cinnamomeo-brunnea; striis concentricis; valva dextra planiuscula, sinistra ventricosa; pallide violacea radiata; intus violacea. Pl. VI. fig. 1.

Long. unc. 1·9, lat. unc. 2·8.

Hab. San Diego, California.

This is a shell with a fine cinnamon-brown epidermis, and four pale violet rays showing through. One of these traverses nearly the centre of the valve, and the other three are clustered towards the slope on its posterior margin. The right valve is nearly plane, but the other is somewhat ventricose.

1. *Cyrena obesa.* Testa ovata, turgida, flavo-virente, transversim striata; natibus integris; dentibus lateralibus serrulatis; latere antico convexo acuto; intus pallide violacea.

Long. unc. 1·9, lat. unc. 2·5.

Hab. Rivers, Feejee Islands.

The umbones of this shell are so perfect as to be nearly entire, and only sufficiently erose to bear out one of the features which forms a portion of the character of the genus. Towards the slope the epidermis is thrown into several small angular waves, and is everywhere of a fine yellowish green colour.

2. *Cyrena tenebrosa.* Testa ovata, fusco-virente, transversim striata; natibus valde erosis, dentibus lateralibus serrulatis; latere antico rectiusculo; intus violacea.

Long. unc. 1·8, lat. unc. 2·4.

Hab. Rivers, Feejee Islands.

Both these species are from the same locality, and were for some time placed together in my collection, but a very slight examination is sufficient to establish their distinctness. This is a flatter shell, of a darker colour, with some disposition to send an angle from the umbones, which again are much erose. Within, on the broad extremity of the valves and towards the hinge, it is of a deep violet colour.

Neritina Armstrongiana. Testa subglobosa, striata, nigra, aureo-guttata; anfractu ultimo spinis coronato; apice eroso; labio interno unico dente obtuso munito; apertura cærulescente. Pl. VI. fig. 2.

Hab. Streams, Marquesas Islands.

This pretty species I have much pleasure in naming after my esteemed friend Dr. Armstrong, the Deputy Inspector of the Naval Hospital at Plymouth. The spines are much in the same state as in *N. brevispinosa*, and the exterior is covered with a number of small spots of a golden colour. I never saw it in any other group of the Pacific Islands, so that it is most probably confined to the Marquesas, which generally have very little of novelty either for the botanist or zoologist.

Patella insessa. Testa conica, ovali, fusca, tenue transversim striata, intus alba; apice maculis albis ornato. Plate VI. fig. 3.

Hab. On sea-weed, San Diego, California.

A small horny brown shell, remarkable for the white markings on the apex, usually three, but sometimes four in number, the central being rather the larger. It was always found imbedded in the fronds of a *Laminaria*, which it was often necessary to cut with a knife before the shell could be liberated.

Patelloida depicta. Testa minima, lineari, diaphana, alba, lineis rufis apice radiantibus; lateribus compressis; longa quadruplo quoad longitudinem. Pl. VI. fig. 4.

Hab. On sea-weed, San Diego, California.

This is a small delicate shell, white, with irregular brown rays diverging from the apex, about eight in number on each side, sometimes disposed to fork; clouded with a dark spot anteriorly; and the sides much compressed, so as to make the shell four times longer than broad. My largest specimen is only four-tenths of an inch long. They were found abundant on the surface of *Zostera*. The British Museum, Messrs. Cuming, S. Hanley, and Lovell Reeve have specimens from me, which I mention that they may at once identify them.

In some respects a similar shell has been described by Conrad from the coast of Massachusetts, under the name of *Patella alveus*, in the 'Journ. Acad. Nat. Sciences,' vol. vi. p. 267. t. 11. f. 20; and as *Patelloida alveus* by Couthouy in the Boston 'Journ. Nat. Hist.,' vol. ii. p. 177. But this shell is only twice as long as broad, and is described with "finely radiating striæ," and some other characters not found in our shell.

Scarabus pollex. Testa ovata, compressa, fusco-castanea, longitudinaliter valde striata; striis subarcuatis; anfractu ultimo confuse fasciato. Pl. VI. fig. 5.

Hab. Feejee Islands.

In size this shell approaches *S. Lessoni*, but is distinguished from it by its coarsely striated surface, and by its different markings. It is larger than *S. castaneus*, of a much darker colour, more striated, and further distinguished by the two dark yellowish bands on the upper part of the last whorl. Some difference of opinion exists as to the propriety of considering some of these shells as distinct species, but I think the specimens in my possession are sufficient to remove any doubts on the subject. The locality of this species is the most eastern of the genus; and it may be as well to mention that *S. imbricum* and *S. castaneus* are found in New Ireland, and *S. Lessoni* in New Guinea.

1. *Pupina aurea*. Testa ovali, nitida, aurea; suturis obsoletis; apertura infra incisa, supra emarginata et dentata; fissura sursum ascendente. Pl. VI. fig. 6.

Hab. In the soil, New Guinea.

This and the following species belong to the section of *Pupina*, with two notches in the margin of the aperture. The inferior one is in all cases a notch of more or less depth, but the upper is not correctly either notch, fissure, or incision. On the last whorl, near the outer lip, is a tooth, which together form a channel or sinus, and here there is a slight degree of emargination on the lip itself, so that at first appearance there would seem to be much more of a notch than there really is. This is a fine golden-coloured species; the notch is so deep as to become a fissure, and takes an upward and backward direction.

2. *Pupina mitis*. Testa ovali, parva, nitida, brunnea; suturis obsoletis linea rubra monstratis; apertura infra incisa, supra emarginata et dentata; fissura recta. Pl. VI. fig. 7.

Hab. In dead wood, New Ireland.

The appearance of my specimens is different as they are living or dead shells; the latter are as transparent as glass, but the others are of a reddish brown or even of a grayish colour. But after attentive examination I cannot doubt that they are all one species. Nor is the reddish line which traces the course of the sutures always very decided in the living shells, and in the dead the colour of it has entirely disappeared. The descriptive character of these two species is somewhat similar, but when together they are very different. This is much smaller, wants the fine golden colour of *P. aurea*, and has only a straight notch, for here it is no more. Mr. Cuming has specimens of both from me.

*Paludina seminalis**. Testa obtuse turrita, solidula, cornea, lævi;

* I have thought it expedient to publish descriptions of the above shells; but they are not to be regarded as a portion of the extensive collection of Captain Belcher, C.B., about which I am now occupied.

apice erosa; anfractibus quatuor, apertura cærulescente, effusa.
Pl. VI. fig. 8.

Hab. Rio Sacramento, California.

Distinguished from *P. nuclea* of Mr. Isaac Lea, which is from a neighbouring locality, by its somewhat smaller size, bluish instead of white mouth, having one whorl less, the aperture more expanded, and being without the black line round the mouth, which, when present, is so good a character in his shell, but which, in my numerous specimens of it, I do not find at all constant, and usually only to be seen in those better developed.

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XIV.—*On the spongy origin of Moss Agates and other sili-
ceous bodies.* By J. S. BOWERBANK, Esq., F.G.S.

[Concluded from p. 18.]

IN the green jaspers the organic structure of the tissue is often preserved in the most extraordinary manner. The whole of the sponges that are found in this substance that I have examined are referable to that division, which I have proposed, in the paper "On the structure of the keratose sponges of commerce," to designate *Fistularia*, from the fibre being furnished with a central cavity like that seen in *Spongia fistularis* of Lamarck. In one case, especially, which is represented by Pl. II. fig. 5, the dimensions of the fibre and of its central tubes, the size of the interstices, of the network and its mode of arrangement, are, as far as can be ascertained from the small specimen in which they are imbedded, so exactly similar to those of *Spongia fistularis*, Pl. II. fig. 6, as to render it exceedingly difficult to believe them not to be the remains of the identical species in a fossilized state. In the paper on the keratose sponges of commerce read before the Microscopical Society*, I have described one species of the Turkey sponges, and some of the Australian ones as having their solid fibres surrounded by a horny sheath, in which a system of minute anastomosing vessels were imbedded; and as before stated, we find in *Spongia fistularis* the fibre furnished with a continuous central cavity; but I could not detect in either of the two specimens of this sponge that I have had the opportunity of examining any traces of a vascular sheath on the external surface of the fibre. The existence of the combination of these two interesting forms of structure in the

* Trans. Microscopical Society of London, vol. i. p. 37. pl. 3. figs. 11, 12 and 13.